


# ACKNOWLEDGEMENT RECEIPT

Electronic Version 1.1

Stylesheet Version v1.1.1

| <b>Title of Invention</b>  | METHOD AND APPARATUS FOR STORAGE DEVICE READ PHASE AUTO-CALIBRATION   |  |                          |                   |           |              |   |        |                          |             |   |        |            |      |            |        |            |       |            |                            |                          |     |            |                            |                                |      |            |                            |                                |       |            |               |                         |      |            |               |                   |       |            |               |                   |       |            |               |                       |       |            |               |                       |       |            |            |                          |      |            |            |                |       |            |            |                |       |            |                |                          |     |            |                |                    |      |            |                |                    |       |            |              |                          |      |            |              |                  |       |            |              |                  |       |            |                |                       |       |            |                |                       |       |            |                  |                       |       |            |                  |                      |       |            |
|----------------------------|---|--|--------------------------|-------------------|-----------|--------------|---|--------|--------------------------|-------------|---|--------|------------|------|------------|--------|------------|-------|------------|----------------------------|--------------------------|-----|------------|----------------------------|--------------------------------|------|------------|----------------------------|--------------------------------|-------|------------|---------------|-------------------------|------|------------|---------------|-------------------|-------|------------|---------------|-------------------|-------|------------|---------------|-----------------------|-------|------------|---------------|-----------------------|-------|------------|------------|--------------------------|------|------------|------------|----------------|-------|------------|------------|----------------|-------|------------|----------------|--------------------------|-----|------------|----------------|--------------------|------|------------|----------------|--------------------|-------|------------|--------------|--------------------------|------|------------|--------------|------------------|-------|------------|--------------|------------------|-------|------------|----------------|-----------------------|-------|------------|----------------|-----------------------|-------|------------|------------------|-----------------------|-------|------------|------------------|----------------------|-------|------------|
| Submission Type :          | Utility Patent Filing   |  |                          |                   |           |              |   |        |                          |             |   |        |            |      |            |        |            |       |            |                            |                          |     |            |                            |                                |      |            |                            |                                |       |            |               |                         |      |            |               |                   |       |            |               |                   |       |            |               |                       |       |            |               |                       |       |            |            |                          |      |            |            |                |       |            |            |                |       |            |                |                          |     |            |                |                    |      |            |                |                    |       |            |              |                          |      |            |              |                  |       |            |              |                  |       |            |                |                       |       |            |                |                       |       |            |                  |                       |       |            |                  |                      |       |            |
| Application Number:        | 10/711442   |  |                          |                   |           |              |   |        |                          |             |   |        |            |      |            |        |            |       |            |                            |                          |     |            |                            |                                |      |            |                            |                                |       |            |               |                         |      |            |               |                   |       |            |               |                   |       |            |               |                       |       |            |               |                       |       |            |            |                          |      |            |            |                |       |            |            |                |       |            |                |                          |     |            |                |                    |      |            |                |                    |       |            |              |                          |      |            |              |                  |       |            |              |                  |       |            |                |                       |       |            |                |                       |       |            |                  |                       |       |            |                  |                      |       |            |
| EFS ID:                    | 68771   |  |                          |                   |           |              |   |        |                          |             |   |        |            |      |            |        |            |       |            |                            |                          |     |            |                            |                                |      |            |                            |                                |       |            |               |                         |      |            |               |                   |       |            |               |                   |       |            |               |                       |       |            |               |                       |       |            |            |                          |      |            |            |                |       |            |            |                |       |            |                |                          |     |            |                |                    |      |            |                |                    |       |            |              |                          |      |            |              |                  |       |            |              |                  |       |            |                |                       |       |            |                |                       |       |            |                  |                       |       |            |                  |                      |       |            |
| Server Response:           | <table border="1"> <thead> <tr> <th>Confirmation Code</th> <th>Message</th> </tr> </thead> <tbody> <tr> <td>ISVR1</td> <td>Submission was successfully submitted - Even if Informational or Warning Messages appear below, please do not resubmit this application</td> </tr> <tr> <td>ICON1</td> <td>5441</td> </tr> <tr> <td>USPTOEFSNot</td> <td>For assistance with e-filing a patent application, contact the Patent Electronic Business Center: Toll-Free Number:1(866) 217-9197 Website: <a href="http://www.uspto.gov/ebc/">http://www.uspto.gov/ebc/</a></td> </tr> </tbody> </table>  |  |                          | Confirmation Code | Message   | ISVR1        | Submission was successfully submitted - Even if Informational or Warning Messages appear below, please do not resubmit this application | ICON1  | 5441                     | USPTOEFSNot | For assistance with e-filing a patent application, contact the Patent Electronic Business Center: Toll-Free Number:1(866) 217-9197 Website: <a href="http://www.uspto.gov/ebc/">http://www.uspto.gov/ebc/</a> |        |            |      |            |        |            |       |            |                            |                          |     |            |                            |                                |      |            |                            |                                |       |            |               |                         |      |            |               |                   |       |            |               |                   |       |            |               |                       |       |            |               |                       |       |            |            |                          |      |            |            |                |       |            |            |                |       |            |                |                          |     |            |                |                    |      |            |                |                    |       |            |              |                          |      |            |              |                  |       |            |              |                  |       |            |                |                       |       |            |                |                       |       |            |                  |                       |       |            |                  |                      |       |            |
| Confirmation Code          | Message   |  |                          |                   |           |              |   |        |                          |             |   |        |            |      |            |        |            |       |            |                            |                          |     |            |                            |                                |      |            |                            |                                |       |            |               |                         |      |            |               |                   |       |            |               |                   |       |            |               |                       |       |            |               |                       |       |            |            |                          |      |            |            |                |       |            |            |                |       |            |                |                          |     |            |                |                    |      |            |                |                    |       |            |              |                          |      |            |              |                  |       |            |              |                  |       |            |                |                       |       |            |                |                       |       |            |                  |                       |       |            |                  |                      |       |            |
| ISVR1                      | Submission was successfully submitted - Even if Informational or Warning Messages appear below, please do not resubmit this application   |  |                          |                   |           |              |   |        |                          |             |   |        |            |      |            |        |            |       |            |                            |                          |     |            |                            |                                |      |            |                            |                                |       |            |               |                         |      |            |               |                   |       |            |               |                   |       |            |               |                       |       |            |               |                       |       |            |            |                          |      |            |            |                |       |            |            |                |       |            |                |                          |     |            |                |                    |      |            |                |                    |       |            |              |                          |      |            |              |                  |       |            |              |                  |       |            |                |                       |       |            |                |                       |       |            |                  |                       |       |            |                  |                      |       |            |
| ICON1                      | 5441  |  |                          |                   |           |              |   |        |                          |             |   |        |            |      |            |        |            |       |            |                            |                          |     |            |                            |                                |      |            |                            |                                |       |            |               |                         |      |            |               |                   |       |            |               |                   |       |            |               |                       |       |            |               |                       |       |            |            |                          |      |            |            |                |       |            |            |                |       |            |                |                          |     |            |                |                    |      |            |                |                    |       |            |              |                          |      |            |              |                  |       |            |              |                  |       |            |                |                       |       |            |                |                       |       |            |                  |                       |       |            |                  |                      |       |            |
| USPTOEFSNot                | For assistance with e-filing a patent application, contact the Patent Electronic Business Center: Toll-Free Number:1(866) 217-9197 Website: <a href="http://www.uspto.gov/ebc/">http://www.uspto.gov/ebc/</a>   |  |                          |                   |           |              |   |        |                          |             |   |        |            |      |            |        |            |       |            |                            |                          |     |            |                            |                                |      |            |                            |                                |       |            |               |                         |      |            |               |                   |       |            |               |                   |       |            |               |                       |       |            |               |                       |       |            |            |                          |      |            |            |                |       |            |            |                |       |            |                |                          |     |            |                |                    |      |            |                |                    |       |            |              |                          |      |            |              |                  |       |            |              |                  |       |            |                |                       |       |            |                |                       |       |            |                  |                       |       |            |                  |                      |       |            |
| First Named Applicant:     | Yi-Shu Chang  |  |                          |                   |           |              |   |        |                          |             |   |        |            |      |            |        |            |       |            |                            |                          |     |            |                            |                                |      |            |                            |                                |       |            |               |                         |      |            |               |                   |       |            |               |                   |       |            |               |                       |       |            |               |                       |       |            |            |                          |      |            |            |                |       |            |            |                |       |            |                |                          |     |            |                |                    |      |            |                |                    |       |            |              |                          |      |            |              |                  |       |            |              |                  |       |            |                |                       |       |            |                |                       |       |            |                  |                       |       |            |                  |                      |       |            |
| Attorney Docket Number:    | REAP0045USA   |  |                          |                   |           |              |   |        |                          |             |   |        |            |      |            |        |            |       |            |                            |                          |     |            |                            |                                |      |            |                            |                                |       |            |               |                         |      |            |               |                   |       |            |               |                   |       |            |               |                       |       |            |               |                       |       |            |            |                          |      |            |            |                |       |            |            |                |       |            |                |                          |     |            |                |                    |      |            |                |                    |       |            |              |                          |      |            |              |                  |       |            |              |                  |       |            |                |                       |       |            |                |                       |       |            |                  |                       |       |            |                  |                      |       |            |
| Timestamp:                 | 2004-09-19 23:09:22 EDT   |  |                          |                   |           |              |   |        |                          |             |   |        |            |      |            |        |            |       |            |                            |                          |     |            |                            |                                |      |            |                            |                                |       |            |               |                         |      |            |               |                   |       |            |               |                   |       |            |               |                       |       |            |               |                       |       |            |            |                          |      |            |            |                |       |            |            |                |       |            |                |                          |     |            |                |                    |      |            |                |                    |       |            |              |                          |      |            |              |                  |       |            |              |                  |       |            |                |                       |       |            |                |                       |       |            |                  |                       |       |            |                  |                      |       |            |
| From:                      | us  |  |                          |                   |           |              |   |        |                          |             |   |        |            |      |            |        |            |       |            |                            |                          |     |            |                            |                                |      |            |                            |                                |       |            |               |                         |      |            |               |                   |       |            |               |                   |       |            |               |                       |       |            |               |                       |       |            |            |                          |      |            |            |                |       |            |            |                |       |            |                |                          |     |            |                |                    |      |            |                |                    |       |            |              |                          |      |            |              |                  |       |            |              |                  |       |            |                |                       |       |            |                |                       |       |            |                  |                       |       |            |                  |                      |       |            |
| File Listing:              | <table border="1"> <thead> <tr> <th>Doc. Name</th> <th>File Name</th> <th>Size (Bytes)</th> <th>Date Produced (yyyymmdd)</th> </tr> </thead> <tbody> <tr><td>us-ids</td><td>REAP0045-0-A1-usidst.xml</td><td>720</td><td>2004-09-19</td></tr> <tr><td>us-ids</td><td>us-ids.dtd</td><td>7763</td><td>2004-09-19</td></tr> <tr><td>us-ids</td><td>us-ids.xsl</td><td>12026</td><td>2004-09-19</td></tr> <tr><td>us-power-of-attorney-grant</td><td>REAP0045-0-A1-uspoat.xml</td><td>934</td><td>2004-09-19</td></tr> <tr><td>us-power-of-attorney-grant</td><td>us-power-of-attorney-grant.dtd</td><td>4923</td><td>2004-09-19</td></tr> <tr><td>us-power-of-attorney-grant</td><td>us-power-of-attorney-grant.xsl</td><td>12448</td><td>2004-09-19</td></tr> <tr><td>us-assignment</td><td>REAP0045-0-A1-usasn.xml</td><td>1888</td><td>2004-09-19</td></tr> <tr><td>us-assignment</td><td>us-assignment.xsl</td><td>11263</td><td>2004-09-19</td></tr> <tr><td>us-assignment</td><td>us-assignment.dtd</td><td>11123</td><td>2004-09-19</td></tr> <tr><td>us-assignment</td><td>REAP0045-0-A1ASS1.tif</td><td>73672</td><td>2004-09-19</td></tr> <tr><td>us-assignment</td><td>REAP0045-0-A1ASS2.tif</td><td>52970</td><td>2004-09-19</td></tr> <tr><td>us-request</td><td>REAP0045-0-A1-usrequ.xml</td><td>1947</td><td>2004-09-19</td></tr> <tr><td>us-request</td><td>us-request.dtd</td><td>19064</td><td>2004-09-19</td></tr> <tr><td>us-request</td><td>us-request.xsl</td><td>33904</td><td>2004-09-19</td></tr> <tr><td>us-declaration</td><td>REAP0045-0-A1-usdecl.xml</td><td>812</td><td>2004-09-19</td></tr> <tr><td>us-declaration</td><td>us-declaration.dtd</td><td>3833</td><td>2004-09-19</td></tr> <tr><td>us-declaration</td><td>us-declaration.xsl</td><td>10015</td><td>2004-09-19</td></tr> <tr><td>us-fee-sheet</td><td>REAP0045-0-A1-usfees.xml</td><td>1902</td><td>2004-09-19</td></tr> <tr><td>us-fee-sheet</td><td>us-fee-sheet.xsl</td><td>24912</td><td>2004-09-19</td></tr> <tr><td>us-fee-sheet</td><td>us-fee-sheet.dtd</td><td>11069</td><td>2004-09-19</td></tr> <tr><td>us-declaration</td><td>REAP0045-0-A1DEC1.tif</td><td>87602</td><td>2004-09-19</td></tr> <tr><td>us-declaration</td><td>REAP0045-0-A1DEC2.tif</td><td>53536</td><td>2004-09-19</td></tr> <tr><td>application-body</td><td>REAP0045-0-A1-ABX.xml</td><td>15313</td><td>2004-09-19</td></tr> <tr><td>application-body</td><td>application-body.dtd</td><td>49498</td><td>2004-09-19</td></tr> </tbody> </table> |  |                          | Doc. Name         | File Name | Size (Bytes) | Date Produced (yyyymmdd)  | us-ids | REAP0045-0-A1-usidst.xml | 720         | 2004-09-19  | us-ids | us-ids.dtd | 7763 | 2004-09-19 | us-ids | us-ids.xsl | 12026 | 2004-09-19 | us-power-of-attorney-grant | REAP0045-0-A1-uspoat.xml | 934 | 2004-09-19 | us-power-of-attorney-grant | us-power-of-attorney-grant.dtd | 4923 | 2004-09-19 | us-power-of-attorney-grant | us-power-of-attorney-grant.xsl | 12448 | 2004-09-19 | us-assignment | REAP0045-0-A1-usasn.xml | 1888 | 2004-09-19 | us-assignment | us-assignment.xsl | 11263 | 2004-09-19 | us-assignment | us-assignment.dtd | 11123 | 2004-09-19 | us-assignment | REAP0045-0-A1ASS1.tif | 73672 | 2004-09-19 | us-assignment | REAP0045-0-A1ASS2.tif | 52970 | 2004-09-19 | us-request | REAP0045-0-A1-usrequ.xml | 1947 | 2004-09-19 | us-request | us-request.dtd | 19064 | 2004-09-19 | us-request | us-request.xsl | 33904 | 2004-09-19 | us-declaration | REAP0045-0-A1-usdecl.xml | 812 | 2004-09-19 | us-declaration | us-declaration.dtd | 3833 | 2004-09-19 | us-declaration | us-declaration.xsl | 10015 | 2004-09-19 | us-fee-sheet | REAP0045-0-A1-usfees.xml | 1902 | 2004-09-19 | us-fee-sheet | us-fee-sheet.xsl | 24912 | 2004-09-19 | us-fee-sheet | us-fee-sheet.dtd | 11069 | 2004-09-19 | us-declaration | REAP0045-0-A1DEC1.tif | 87602 | 2004-09-19 | us-declaration | REAP0045-0-A1DEC2.tif | 53536 | 2004-09-19 | application-body | REAP0045-0-A1-ABX.xml | 15313 | 2004-09-19 | application-body | application-body.dtd | 49498 | 2004-09-19 |
| Doc. Name                  | File Name   | Size (Bytes)   | Date Produced (yyyymmdd) |                   |           |              |   |        |                          |             |   |        |            |      |            |        |            |       |            |                            |                          |     |            |                            |                                |      |            |                            |                                |       |            |               |                         |      |            |               |                   |       |            |               |                   |       |            |               |                       |       |            |               |                       |       |            |            |                          |      |            |            |                |       |            |            |                |       |            |                |                          |     |            |                |                    |      |            |                |                    |       |            |              |                          |      |            |              |                  |       |            |              |                  |       |            |                |                       |       |            |                |                       |       |            |                  |                       |       |            |                  |                      |       |            |
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| us-ids                     | us-ids.dtd  | 7763   | 2004-09-19               |                   |           |              |   |        |                          |             |   |        |            |      |            |        |            |       |            |                            |                          |     |            |                            |                                |      |            |                            |                                |       |            |               |                         |      |            |               |                   |       |            |               |                   |       |            |               |                       |       |            |               |                       |       |            |            |                          |      |            |            |                |       |            |            |                |       |            |                |                          |     |            |                |                    |      |            |                |                    |       |            |              |                          |      |            |              |                  |       |            |              |                  |       |            |                |                       |       |            |                |                       |       |            |                  |                       |       |            |                  |                      |       |            |
| us-ids                     | us-ids.xsl  | 12026  | 2004-09-19               |                   |           |              |   |        |                          |             |   |        |            |      |            |        |            |       |            |                            |                          |     |            |                            |                                |      |            |                            |                                |       |            |               |                         |      |            |               |                   |       |            |               |                   |       |            |               |                       |       |            |               |                       |       |            |            |                          |      |            |            |                |       |            |            |                |       |            |                |                          |     |            |                |                    |      |            |                |                    |       |            |              |                          |      |            |              |                  |       |            |              |                  |       |            |                |                       |       |            |                |                       |       |            |                  |                       |       |            |                  |                      |       |            |
| us-power-of-attorney-grant | REAP0045-0-A1-uspoat.xml  | 934  | 2004-09-19               |                   |           |              |   |        |                          |             |   |        |            |      |            |        |            |       |            |                            |                          |     |            |                            |                                |      |            |                            |                                |       |            |               |                         |      |            |               |                   |       |            |               |                   |       |            |               |                       |       |            |               |                       |       |            |            |                          |      |            |            |                |       |            |            |                |       |            |                |                          |     |            |                |                    |      |            |                |                    |       |            |              |                          |      |            |              |                  |       |            |              |                  |       |            |                |                       |       |            |                |                       |       |            |                  |                       |       |            |                  |                      |       |            |
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| us-assignment              | REAP0045-0-A1-usasn.xml   | 1888   | 2004-09-19               |                   |           |              |   |        |                          |             |   |        |            |      |            |        |            |       |            |                            |                          |     |            |                            |                                |      |            |                            |                                |       |            |               |                         |      |            |               |                   |       |            |               |                   |       |            |               |                       |       |            |               |                       |       |            |            |                          |      |            |            |                |       |            |            |                |       |            |                |                          |     |            |                |                    |      |            |                |                    |       |            |              |                          |      |            |              |                  |       |            |              |                  |       |            |                |                       |       |            |                |                       |       |            |                  |                       |       |            |                  |                      |       |            |
| us-assignment              | us-assignment.xsl   | 11263  | 2004-09-19               |                   |           |              |   |        |                          |             |   |        |            |      |            |        |            |       |            |                            |                          |     |            |                            |                                |      |            |                            |                                |       |            |               |                         |      |            |               |                   |       |            |               |                   |       |            |               |                       |       |            |               |                       |       |            |            |                          |      |            |            |                |       |            |            |                |       |            |                |                          |     |            |                |                    |      |            |                |                    |       |            |              |                          |      |            |              |                  |       |            |              |                  |       |            |                |                       |       |            |                |                       |       |            |                  |                       |       |            |                  |                      |       |            |
| us-assignment              | us-assignment.dtd   | 11123  | 2004-09-19               |                   |           |              |   |        |                          |             |   |        |            |      |            |        |            |       |            |                            |                          |     |            |                            |                                |      |            |                            |                                |       |            |               |                         |      |            |               |                   |       |            |               |                   |       |            |               |                       |       |            |               |                       |       |            |            |                          |      |            |            |                |       |            |            |                |       |            |                |                          |     |            |                |                    |      |            |                |                    |       |            |              |                          |      |            |              |                  |       |            |              |                  |       |            |                |                       |       |            |                |                       |       |            |                  |                       |       |            |                  |                      |       |            |
| us-assignment              | REAP0045-0-A1ASS1.tif   | 73672  | 2004-09-19               |                   |           |              |   |        |                          |             |   |        |            |      |            |        |            |       |            |                            |                          |     |            |                            |                                |      |            |                            |                                |       |            |               |                         |      |            |               |                   |       |            |               |                   |       |            |               |                       |       |            |               |                       |       |            |            |                          |      |            |            |                |       |            |            |                |       |            |                |                          |     |            |                |                    |      |            |                |                    |       |            |              |                          |      |            |              |                  |       |            |              |                  |       |            |                |                       |       |            |                |                       |       |            |                  |                       |       |            |                  |                      |       |            |
| us-assignment              | REAP0045-0-A1ASS2.tif   | 52970  | 2004-09-19               |                   |           |              |   |        |                          |             |   |        |            |      |            |        |            |       |            |                            |                          |     |            |                            |                                |      |            |                            |                                |       |            |               |                         |      |            |               |                   |       |            |               |                   |       |            |               |                       |       |            |               |                       |       |            |            |                          |      |            |            |                |       |            |            |                |       |            |                |                          |     |            |                |                    |      |            |                |                    |       |            |              |                          |      |            |              |                  |       |            |              |                  |       |            |                |                       |       |            |                |                       |       |            |                  |                       |       |            |                  |                      |       |            |
| us-request                 | REAP0045-0-A1-usrequ.xml  | 1947   | 2004-09-19               |                   |           |              |   |        |                          |             |   |        |            |      |            |        |            |       |            |                            |                          |     |            |                            |                                |      |            |                            |                                |       |            |               |                         |      |            |               |                   |       |            |               |                   |       |            |               |                       |       |            |               |                       |       |            |            |                          |      |            |            |                |       |            |            |                |       |            |                |                          |     |            |                |                    |      |            |                |                    |       |            |              |                          |      |            |              |                  |       |            |              |                  |       |            |                |                       |       |            |                |                       |       |            |                  |                       |       |            |                  |                      |       |            |
| us-request                 | us-request.dtd  | 19064  | 2004-09-19               |                   |           |              |   |        |                          |             |   |        |            |      |            |        |            |       |            |                            |                          |     |            |                            |                                |      |            |                            |                                |       |            |               |                         |      |            |               |                   |       |            |               |                   |       |            |               |                       |       |            |               |                       |       |            |            |                          |      |            |            |                |       |            |            |                |       |            |                |                          |     |            |                |                    |      |            |                |                    |       |            |              |                          |      |            |              |                  |       |            |              |                  |       |            |                |                       |       |            |                |                       |       |            |                  |                       |       |            |                  |                      |       |            |
| us-request                 | us-request.xsl  | 33904  | 2004-09-19               |                   |           |              |   |        |                          |             |   |        |            |      |            |        |            |       |            |                            |                          |     |            |                            |                                |      |            |                            |                                |       |            |               |                         |      |            |               |                   |       |            |               |                   |       |            |               |                       |       |            |               |                       |       |            |            |                          |      |            |            |                |       |            |            |                |       |            |                |                          |     |            |                |                    |      |            |                |                    |       |            |              |                          |      |            |              |                  |       |            |              |                  |       |            |                |                       |       |            |                |                       |       |            |                  |                       |       |            |                  |                      |       |            |
| us-declaration             | REAP0045-0-A1-usdecl.xml  | 812  | 2004-09-19               |                   |           |              |   |        |                          |             |   |        |            |      |            |        |            |       |            |                            |                          |     |            |                            |                                |      |            |                            |                                |       |            |               |                         |      |            |               |                   |       |            |               |                   |       |            |               |                       |       |            |               |                       |       |            |            |                          |      |            |            |                |       |            |            |                |       |            |                |                          |     |            |                |                    |      |            |                |                    |       |            |              |                          |      |            |              |                  |       |            |              |                  |       |            |                |                       |       |            |                |                       |       |            |                  |                       |       |            |                  |                      |       |            |
| us-declaration             | us-declaration.dtd  | 3833   | 2004-09-19               |                   |           |              |   |        |                          |             |   |        |            |      |            |        |            |       |            |                            |                          |     |            |                            |                                |      |            |                            |                                |       |            |               |                         |      |            |               |                   |       |            |               |                   |       |            |               |                       |       |            |               |                       |       |            |            |                          |      |            |            |                |       |            |            |                |       |            |                |                          |     |            |                |                    |      |            |                |                    |       |            |              |                          |      |            |              |                  |       |            |              |                  |       |            |                |                       |       |            |                |                       |       |            |                  |                       |       |            |                  |                      |       |            |
| us-declaration             | us-declaration.xsl  | 10015  | 2004-09-19               |                   |           |              |   |        |                          |             |   |        |            |      |            |        |            |       |            |                            |                          |     |            |                            |                                |      |            |                            |                                |       |            |               |                         |      |            |               |                   |       |            |               |                   |       |            |               |                       |       |            |               |                       |       |            |            |                          |      |            |            |                |       |            |            |                |       |            |                |                          |     |            |                |                    |      |            |                |                    |       |            |              |                          |      |            |              |                  |       |            |              |                  |       |            |                |                       |       |            |                |                       |       |            |                  |                       |       |            |                  |                      |       |            |
| us-fee-sheet               | REAP0045-0-A1-usfees.xml  | 1902   | 2004-09-19               |                   |           |              |   |        |                          |             |   |        |            |      |            |        |            |       |            |                            |                          |     |            |                            |                                |      |            |                            |                                |       |            |               |                         |      |            |               |                   |       |            |               |                   |       |            |               |                       |       |            |               |                       |       |            |            |                          |      |            |            |                |       |            |            |                |       |            |                |                          |     |            |                |                    |      |            |                |                    |       |            |              |                          |      |            |              |                  |       |            |              |                  |       |            |                |                       |       |            |                |                       |       |            |                  |                       |       |            |                  |                      |       |            |
| us-fee-sheet               | us-fee-sheet.xsl  | 24912  | 2004-09-19               |                   |           |              |   |        |                          |             |   |        |            |      |            |        |            |       |            |                            |                          |     |            |                            |                                |      |            |                            |                                |       |            |               |                         |      |            |               |                   |       |            |               |                   |       |            |               |                       |       |            |               |                       |       |            |            |                          |      |            |            |                |       |            |            |                |       |            |                |                          |     |            |                |                    |      |            |                |                    |       |            |              |                          |      |            |              |                  |       |            |              |                  |       |            |                |                       |       |            |                |                       |       |            |                  |                       |       |            |                  |                      |       |            |
| us-fee-sheet               | us-fee-sheet.dtd  | 11069  | 2004-09-19               |                   |           |              |   |        |                          |             |   |        |            |      |            |        |            |       |            |                            |                          |     |            |                            |                                |      |            |                            |                                |       |            |               |                         |      |            |               |                   |       |            |               |                   |       |            |               |                       |       |            |               |                       |       |            |            |                          |      |            |            |                |       |            |            |                |       |            |                |                          |     |            |                |                    |      |            |                |                    |       |            |              |                          |      |            |              |                  |       |            |              |                  |       |            |                |                       |       |            |                |                       |       |            |                  |                       |       |            |                  |                      |       |            |
| us-declaration             | REAP0045-0-A1DEC1.tif   | 87602  | 2004-09-19               |                   |           |              |   |        |                          |             |   |        |            |      |            |        |            |       |            |                            |                          |     |            |                            |                                |      |            |                            |                                |       |            |               |                         |      |            |               |                   |       |            |               |                   |       |            |               |                       |       |            |               |                       |       |            |            |                          |      |            |            |                |       |            |            |                |       |            |                |                          |     |            |                |                    |      |            |                |                    |       |            |              |                          |      |            |              |                  |       |            |              |                  |       |            |                |                       |       |            |                |                       |       |            |                  |                       |       |            |                  |                      |       |            |
| us-declaration             | REAP0045-0-A1DEC2.tif   | 53536  | 2004-09-19               |                   |           |              |   |        |                          |             |   |        |            |      |            |        |            |       |            |                            |                          |     |            |                            |                                |      |            |                            |                                |       |            |               |                         |      |            |               |                   |       |            |               |                   |       |            |               |                       |       |            |               |                       |       |            |            |                          |      |            |            |                |       |            |            |                |       |            |                |                          |     |            |                |                    |      |            |                |                    |       |            |              |                          |      |            |              |                  |       |            |              |                  |       |            |                |                       |       |            |                |                       |       |            |                  |                       |       |            |                  |                      |       |            |
| application-body           | REAP0045-0-A1-ABX.xml   | 15313  | 2004-09-19               |                   |           |              |   |        |                          |             |   |        |            |      |            |        |            |       |            |                            |                          |     |            |                            |                                |      |            |                            |                                |       |            |               |                         |      |            |               |                   |       |            |               |                   |       |            |               |                       |       |            |               |                       |       |            |            |                          |      |            |            |                |       |            |            |                |       |            |                |                          |     |            |                |                    |      |            |                |                    |       |            |              |                          |      |            |              |                  |       |            |              |                  |       |            |                |                       |       |            |                |                       |       |            |                  |                       |       |            |                  |                      |       |            |
| application-body           | application-body.dtd  | 49498  | 2004-09-19               |                   |           |              |   |        |                          |             |   |        |            |      |            |        |            |       |            |                            |                          |     |            |                            |                                |      |            |                            |                                |       |            |               |                         |      |            |               |                   |       |            |               |                   |       |            |               |                       |       |            |               |                       |       |            |            |                          |      |            |            |                |       |            |            |                |       |            |                |                          |     |            |                |                    |      |            |                |                    |       |            |              |                          |      |            |              |                  |       |            |              |                  |       |            |                |                       |       |            |                |                       |       |            |                  |                       |       |            |                  |                      |       |            |

| Doc. Name                 | File Name                      | Size (Bytes) | Date Produced (yyyymmdd) |
|---------------------------|--------------------------------|--------------|--------------------------|
| application-body          | Image1.tif                     | 675265       | 2004-09-19               |
| application-body          | Image2.tif                     | 315865       | 2004-09-19               |
| application-body          | isoamsa.ent                    | 5191         | 2004-09-19               |
| application-body          | isoamsb.ent                    | 3988         | 2004-09-19               |
| application-body          | isoamsc.ent                    | 1460         | 2004-09-19               |
| application-body          | isoamsn.ent                    | 5620         | 2004-09-19               |
| application-body          | isoamso.ent                    | 1934         | 2004-09-19               |
| application-body          | isoamsr.ent                    | 7073         | 2004-09-19               |
| application-body          | isobox.ent                     | 3568         | 2004-09-19               |
| application-body          | isocyr1.ent                    | 5345         | 2004-09-19               |
| application-body          | isocyr2.ent                    | 2504         | 2004-09-19               |
| application-body          | isodia.ent                     | 1508         | 2004-09-19               |
| application-body          | isogr1.ent                     | 4030         | 2004-09-19               |
| application-body          | isogr2.ent                     | 2259         | 2004-09-19               |
| application-body          | isogr3.ent                     | 3559         | 2004-09-19               |
| application-body          | isogr4.ent                     | 1920         | 2004-09-19               |
| application-body          | isolat1.ent                    | 5282         | 2004-09-19               |
| application-body          | isolat2.ent                    | 9007         | 2004-09-19               |
| application-body          | isomfrk.ent                    | 4553         | 2004-09-19               |
| application-body          | isomopf.ent                    | 2571         | 2004-09-19               |
| application-body          | isomscr.ent                    | 4628         | 2004-09-19               |
| application-body          | isonum.ent                     | 5913         | 2004-09-19               |
| application-body          | isopub.ent                     | 6621         | 2004-09-19               |
| application-body          | isotech.ent                    | 5268         | 2004-09-19               |
| application-body          | mathml2.dtd                    | 54588        | 2004-09-19               |
| application-body          | mathml2-qname-1.mod            | 13225        | 2004-09-19               |
| application-body          | mmlalias.ent                   | 38209        | 2004-09-19               |
| application-body          | mmlextra.ent                   | 7901         | 2004-09-19               |
| application-body          | soextblx.dtd                   | 12870        | 2004-09-19               |
| application-body          | us-application-body.xsl        | 82504        | 2004-09-19               |
| application-body          | wipo.ent                       | 4956         | 2004-09-19               |
| application-body-pdf-wrap | REAP0045-0-A1-ABX-pdf-wrap.xml | 773          | 2004-09-19               |
| abstract-pdf              | REAP0045-0-A1-ABX-abst.pdf     | 12042        | 2004-09-19               |
| claims-pdf                | REAP0045-0-A1-ABX-clms.pdf     | 19227        | 2004-09-19               |
| description-pdf           | REAP0045-0-A1-ABX-desc.pdf     | 35041        | 2004-09-19               |
| drawings-pdf              | REAP0045-0-A1-ABX-draw.pdf     | 37964        | 2004-09-19               |
| package-data              | REAP0045-0-A1-pkda.xml         | 10573        | 2004-09-19               |
| package-data              | package-data.dtd               | 27025        | 2004-09-19               |
| package-data              | us-package-data.xsl            | 19263        | 2004-09-19               |
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